

forming a cavity in said dielectric layer;  
onto said first surface depositing a layer of copper, whereby said cavity becomes overfilled with copper;

polishing said copper layer with a slurry that comprises a suspension of abrasive particles in deionized water, hydrogen peroxide, and TMAH until said cavity is just filled with copper, having a second surface, and there is no copper on said first surface; and

rinsing said copper layer in deionized water whereby there is no oxide layer on said second surface and all of said abrasive particle particles have been removed.

Claim 28 (original): The process described in claim 27 wherein the TMAH has a concentration in said slurry of between about 2% and 20%.

Claim 29 (currently amended): A process for performing CMP, comprising:  
providing a dielectric layer having a first surface;  
forming a cavity in said dielectric layer;  
onto said first surface depositing a layer of copper, whereby said cavity becomes overfilled with copper;

polishing said copper layer with a slurry that comprises a suspension of abrasive particles in deionized water, hydrogen peroxide, and TBAH until said cavity is just filled with copper, having a second surface, and there is no copper on said first surface; and

rinsing said copper layer in deionized water whereby there is no oxide layer on said second surface and all of said abrasive particle particles have been removed.

Claim 30 (original): The process described in claim 29 wherein the TBAH has a concentration in said slurry of between about 2% and 20%.